

Comparisons of Job Characteristics

Focus Occupation: [Electricians \(47-2111\)](#)

Associated Occupation: [Security and Fire Alarm Systems Installers \(49-2098\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 72

Focus Occupation: Electricians (47-2111)

Associated Occupation: Security and Fire Alarm Systems Installers (49-2098)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|--|---------------------------------|--------------------------------|---------------------------|---|
| Computers and Electronics | 8.4 | 13.2 | 10.1 | << Extensive education and/or training may be required |
| Public Safety and Security | 6.9 | 10.5 | 7.6 | << Extensive education and/or training may be required |
| Mechanical | 6.8 | 9.8 | 16.5 | >> Current knowledge level is likely more than sufficient |
| Building and Construction | 4.0 | 9.3 | 14.6 | >> Current knowledge level is likely more than sufficient |
| Telecommunications | 3.9 | 9.1 | 10.4 | > Current knowledge level is likely sufficient |
| Design | 5.2 | 6.6 | 13.4 | >> Current knowledge level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 70

Focus Occupation: Electricians (47-2111)

Associated Occupation: Security and Fire Alarm Systems Installers (49-2098)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|---|---------------------------------|--------------------------------|---------------------------|---|
| Installation | 1.7 | 8.7 | 9.4 | 0 Current skill level may be sufficient |
| Quality Control Analysis | 5.9 | 8.7 | 11.0 | > Skill level is likely sufficient |
| Troubleshooting | 4.5 | 8.2 | 12.3 | >> Skill level is likely more than sufficient |
| Equipment Maintenance | 3.5 | 7.6 | 10.3 | >> Skill level is likely more than sufficient |
| Repairing | 3.4 | 7.6 | 11.6 | >> Skill level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 91 | | | |
|---|---------------------------------|---|---------------------------|--------------------------------|--|
| Focus Occupation: Electricians (47-2111) | | | | | |
| Associated Occupation: Security and Fire Alarm Systems Installers (49-2098) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Oral Comprehension | 12.5 | 11.1 | 12.2 | 0 | Current ability level may be sufficient |
| Near Vision | 11.1 | 10.8 | 12.3 | > | Current ability level is likely sufficient |
| Problem Sensitivity | 11.1 | 10.7 | 12.7 | > | Current ability level is likely sufficient |
| Oral Expression | 12.4 | 10.2 | 11.7 | > | Current ability level is likely sufficient |
| Arm-Hand Steadiness | 6.8 | 9.8 | 11.0 | > | Current ability level is likely sufficient |
| Deductive Reasoning | 10.6 | 9.5 | 11.2 | > | Current ability level is likely sufficient |
| Multilimb Coordination | 6.0 | 9.5 | 11.4 | > | Current ability level is likely sufficient |
| Visual Color Discrimination | 6.4 | 9.5 | 12.8 | >> | Current ability level is likely more than sufficient |
| Control Precision | 6.6 | 9.1 | 9.5 | 0 | Current ability level may be sufficient |
| Extent Flexibility | 4.8 | 7.8 | 10.4 | >> | Current ability level is likely more than sufficient |
| Gross Body Equilibrium | 3.2 | 5.5 | 8.2 | >> | Current ability level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 98 |
|---|-------------------------|---|
| Focus Occupation: Electricians (47-2111) Associated Occupation: Security and Fire Alarm Systems Installers (49-2098) | | |
| Work Activities | Exclusivity of Activity | |
| Analyze operation of malfunctioning electrical or electronic equipment | 68 | |
| Bend tubing or conduit | 81 | |
| Distinguish colors | 44 | |
| Estimate cost for repair services | 82 | |
| Inspect electrical installation for code conformance | 89 | |
| Install electrical conduit or tubing | 81 | |
| Install electrical fixtures or components | 71 | |
| Install electronic power, communication, control, or security equipment or systems | 76 | |
| Install or replace meters, regulators, or related measuring or control devices | 66 | |
| Install/connect electrical equipment to power circuit | 57 | |
| Install/string electrical or electronic cable or wiring | 76 | |
| Perform safety inspections in industrial, manufacturing or repair setting | 32 | |

| | |
|---|----|
| Read blueprints | 10 |
| Read tape measure | 41 |
| Read technical drawings | 7 |
| Repair electronic components, equipment, or systems | 74 |
| Repair or adjust measuring or control devices | 71 |
| Repair or replace electrical wiring, circuits, fixtures, or equipment | 49 |
| Replace electronic components | 63 |
| Solder electrical or electronic connections or components | 55 |
| Splice electric cable | 85 |
| Test electrical/electronic wiring, equipment, systems or fixtures | 54 |
| Test electronic or electrical circuit connections | 66 |
| Understand service or repair manuals | 40 |
| Use electrical or electronic test devices or equipment | 40 |
| Use hand or power tools | 2 |
| Use interpersonal communication techniques | 10 |
| Use soldering equipment | 44 |
| Use voltmeter, ammeter, or ohmmeter | 52 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 81

Focus Occupation: Electricians (47-2111)

Associated Occupation: Security and Fire Alarm Systems Installers (49-2098)

| Tools and Technologies | Exclusivity |
|--|-------------|
| Aerial lifts | 13 |
| Computers | 1 |
| Content authoring and editing software | 1 |
| Cutting and crimping and punching tools | 3 |
| Electrical measuring and testing equipment | 7 |
| Fastener setting tools | 12 |
| Forming tools | 2 |
| Holding and clamping tools | 3 |
| Indicating and recording instruments | 2 |
| Ladders and scaffolding | 6 |
| Light and wave generating and measuring equipment | 4 |
| Measuring and layout tools | 3 |
| Power tools | 2 |
| Pulling tools | 31 |
| Soldering and brazing and welding machinery and supplies | 6 |
| Surveillance and detection equipment | 11 |
| Tool attachments and accessories | 12 |
| Wrenches and drivers | 2 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.